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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,555	06/26/2003	Wassana Apichatachutapan	12164	7282
28484	7590	08/24/2006	EXAMINER	
BASF AKTIENGESELLSCHAFT CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN LUDWIGSHAFEN, 69056 GERMANY			COONEY, JOHN M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,555

Applicant(s)

APICHATACHUTAPAN ET AL.

Examiner

John m. Cooney

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,14,16-32,34-37 and 40-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,14,16-32,34-37 and 40-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6-9-06 has been entered.

Specification

The amendment filed 6-9-06 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material that is not supported by the original disclosure is as follows: The amendment to paragraph [0029] inserting KOH values of greater than 450 KOH/g lacks support in the original disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action. Applicants' amendment reinserts new matter that was never shown to be provided for in the originally filed supporting disclosure.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 1711

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 45 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' amendment to the claims inserting hydroxyl numbers of greater than 450 lacks support in the original disclosure. This is a new matter rejection.

Although applicants' recite a calculation for KOH values for fully OH based chain extenders of their invention. The calculation is based on the assumption that the chain extenders of applicants' originally disclosed invention were limited solely to hydroxyl functional chain extenders. This assumption, which is necessary to support the now inserted range of KOH values, can not fairly be made. Support for this now recited range lacks support in the originally filed disclosure.

Claims 1, 3-10, 14, 16-32, 34-37, and 40-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the

Art Unit: 1711

time the application was filed, had possession of the claimed invention. Applicants' amendments to the claims setting forth ranges of functionality values for their respective isocyanate reactive components lack support in the originally filed disclosure. This is a new matter rejection.

Rejection is maintained for the reasons set forth above, and applicants have made no arguments to rebut the above position.

Claims 1, 3-10, 14, 16-32, 34-37, and 40-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants' amendment to the claims of 10-31-05 setting forth a lower range endpoint of "7" for the range of chain extender content values lacks support in the originally filed disclosure. This is a new matter rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1711

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-10, 14, 16-32, 34-37, and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lutter et al.(5,420,170).

Lutter et al. discloses preparations of polyurethane foams having densities as claimed prepared from isocyanates, polyols as defined by applicants' claims, chain extenders in amounts in overlap with those claimed, extenders reading on the crosslinkers as claimed, and other auxiliaries, regulators, and additives which are mixed and reacted at isocyanate indices as claimed (see column 8 line 50- column 11 line 36, as well as, the entire document).

Lutter et al. differs from applicants' claims in that chain extenders are not particularly employed in amounts as claimed. However, Lutter et al. recites variation of their chain extender in amounts in overlap with the ranges of amounts claimed by applicants for the purpose of controlling polymer build-up. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amounts of chain extender within the teachings of Lutter et al. for the purpose of controlling polymer build-up of the products obtained in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions

Art Unit: 1711

of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05

I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Claims 1, 3-10, 14, 16-32, 34-37, and 40-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bleys(5,968,993).

Bleys discloses preparations of polyurethane foams prepared from isocyanates, polyols as defined by applicants' claims, and chain extenders in amounts as claimed, crosslinkers, and other materials conventional to such reaction mixtures which are mixed and reacted at isocyanate indices as claimed (see example 3, as well as, the entire document).

Bleys differs from applicants' claims in that densities of the range of values as claimed are not particularly required. However, Bleys recites variation of the densities within their teaching through control of reactants and additive materials, such as amounts of blowing agent, and particularly discloses preferred densities of less than 600kg/m³ for purposes of achieving their inventive concerns. Accordingly, it would have been obvious for one having ordinary skill in the art to have varied the amounts of blowing agent material employed within the teachings of Bleys for the purpose of controlling densities of the products obtained in order to arrive at the products and

Art Unit: 1711

processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. It has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)** Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Bleys differs from applicants' claims in that it does not recite with specificity employment of an additional polyether polyol meeting applicants' claim defined 2nd isocyanate reactive component. However, Bleys own teaching discloses employment of other polyether polyols for achieving the purposes of their invention, and it would have been obvious for one having ordinary skill in the art to have controlled the make-ups of the additional polyether polyols disclosed by Bleys for use in the preparations of Bleys for the purposes of controlling the well studied reactivities and flexibilizing effects attributable to these materials in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. In the case of this element, too, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ

Art Unit: 1711

233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. (see also MPEP 2144.05 I) Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Applicants' arguments and affidavit have been considered but are unpersuasive. Applicants' have not provided a definitive and factually supported showing of new or unexpected results attributable to their compositions as claimed based on differences in the material make-ups of their claims, and any showing would need to be commensurate in scope with the scope of the claims as they currently stand.

When considering showings of new or unexpected results, the following must be considered:

Result Must Compare to Closest Prior Art:

Where a definite comparative standard may be used, the comparison must relate to the prior art embodiment relied upon and not other prior art – *Blanchard v. Ooms*, 68 USPQ 314 – and must be with a disclosure identical (not similar) with that of said embodiment: *In re Tatincloux*, 108 USPQ 125.

Results Must be Unexpected:

Unexpected properties must be more significant than expected properties to rebut a prima facie case of obviousness. *In re Nolan* 193 USPQ 641 CCPA 1977.

Obviousness does not require absolute predictability. *In re Miegel* 159 USPQ 716.

Since unexpected results are by definition unpredictable, evidence presented in comparative showings must be clear and convincing. *In re Lohr* 137 USPQ 548.

In determining patentability, the weight of the actual evidence of unobviousness presented must be balanced against the weight of obviousness of record. *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *In re Beattie*, 24 USPQ 2d 1040.

Claims Must be Commensurate With Showings:

Evidence of superiority must pertain to the full extent of the subject matter being claimed. *In re Ackerman*, 170 USPQ 340; *In re Chupp*, 2 USPQ 2d 1437; *In re Murch* 175 USPQ 89; *Ex Parte A*, 17 USPQ 2d 1719; accordingly, it has been held that to overcome a reasonable case of prima facie obviousness a given claim must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. Further, a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288. See also *In re Kulling*, 14 USPQ 2d 1056.

Applicants' have not persuasively demonstrated unexpected results associated with the differences in their claims which are commensurate in scope with the scope of their claims. Applicants have not demonstrated their results to be clearly and

Art Unit: 1711

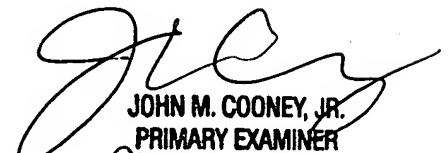
convincingly unexpected and more than mere optimizations of the knowledge in the art or more significant than being secondary in nature.

Additionally, it is maintained that applicants' recitation of viscoelastic in the preamble of the claims does not serve to distinguish applicants' claims in a patentable sense, and freedom of isocyanate from the reactant mix and substantial freedom of flame retardants from the compositions are not elements which distinguish the claims over the cited prior art which do not require these elements such that the teachings of the cited references would be negated. Difference based on the qualitative values now recited in all claims is not seen without such elements being associated with differences in physical elements defined by the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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